



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,009	10/26/2000	Phillip A. Kochler	5544/301	3492

7590

08/27/2002

Oppenheimer Wolff & Donnelly LLP
3400 Plaza VII
45 South Seventh Street
Minneapolis, MN 55402

EXAMINER

HAWKINS, CHERYL N

ART UNIT	PAPER NUMBER
----------	--------------

1734

11

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,009

Applicant(s)

KOEHLER ET AL.

Examiner

Cheryl N Hawkins

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 20-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other:

Art Unit: 1734

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, Claims 1-19 and 34-37 in Paper No. 10 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 24-36 have been renumbered 25-37.

3. Claims 5 and 6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 5 and 6 fail to disclose any structural elements that would further limit the apparatus recited in Claim 1.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the base primary web" in lines 14-15. There is insufficient antecedent basis for this limitation in the claim. It is suggested that "the base primary web" be changed to --the primary supply web--.

6. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the handling manifold" in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested that "the handling manifold" be changed to --a handling manifold--.

7. Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the base material web" in line 17 of the claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested that "the base material web" be changed to --the primary supply web--.

Art Unit: 1734

8. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 recites the limitation "the handling device" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. When referring to the "handling device", it is unclear as to whether the applicant is referring to the handling drive as recited in claim 1 or to a different structural element. For the purposes of examination, it will be assumed that "handling device" is synonymous with the handling drive.

9. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites the limitation "the handling device" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim. When referring to the "handling device", it is unclear as to whether the applicant is referring to the handling drive as recited in claim 1 or to a different structural element. For the purposes of examination, it will be assumed that "handling device" is synonymous with the handling drive.

10. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites the limitation "the handling device" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim. When referring to the "handling device", it is unclear as to whether the applicant is referring to the handling drive as recited in

Art Unit: 1734

claim 1 or to a different structural element. For the purposes of examination, it will be assumed that "handling device" is the handling drive.

11. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the limitation "the handling device" in line 3. There is insufficient antecedent basis for this limitation in the claim. When referring to the "handling device", it is unclear as to whether the applicant is referring to the handling drive as recited in claim 1 or to a different structural element. For the purposes of examination, it will be assumed that "handling device" is synonymous with the handling drive.

12. Claims 34-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (1) Claim 34 recites the limitation "the blade" in line 10 of the claim. There is insufficient antecedent basis for this limitation in the claim. (2) When referring to "the blade", it is unclear as to whether the applicant is referring to the shear blade or the support blade. For the purposes of examination, it will be assumed that the "the blade" refers to the shear blade.

13. Claim 37 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (1) Claim 37 discloses recites the limitation "the cutting blade" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. (2) When referring

Art Unit: 1734

to “the cutting blade”, it is unclear as to whether the applicant is referring to the shear blade or the support blade. For the purposes of examination, it will be assumed that the “the cutting blade” refers to the shear blade.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-4, 7, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Eicker (US 5,041,073). Eicker discloses a laminating device (Figures 1 and 2) which includes a primary feeding mechanism (guide rolls 27) cooperating with a primary supply web (packaging material web 28) for advancing a predetermined length of the primary supply web; a secondary feeding mechanism for advancing a predetermined length of secondary web (strip 5); a cross web shearing apparatus (knife arrangement 1) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (movable knife 7) positioned substantially perpendicular to the secondary web and movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (suction wheel 18) positioned adjacent the shearing apparatus for receiving the strip and moving it to a sealing location (transfer point x) adjacent the primary supply web; and a laminating device (suction wheel 25) located proximate to a handling manifold (suction wheel 18) for sealing the strip to the primary supply web.

As to Claim 2, Eicker discloses a laminating device in which the cross web shearing apparatus includes a support blade (stationary knife 2) positioned substantially perpendicular to the shear blade and in a cutting relationship therewith such that the shear blade and the support blade cause the shearing of the strip (Figures 1 and 2).

As to Claim 3, Eicker discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller controlled to feed the predetermined amount of the primary web (guide rolls 27).

As to Claim 4, Eicker discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller controlled to feed the predetermined amount of the secondary web (column 2, lines 47-55).

As to Claim 7, Eicker discloses a laminating device in which the handling device includes a vacuum applicator manifold using a vacuum signal to hold the secondary web (suction wheel 18).

As to Claim 19, Eicker discloses a laminating device in which the shear blade extends only a predetermined distance below the support blade at any time (Figure 2; column 2, lines 61-63).

16. Claims 1-4, 7, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Foote, Jr. et al. (US 4,083,737). Foote, Jr. et al. discloses a laminating device (Figures 1 and 2) which includes a primary feeding mechanism (guide roll 80) cooperating with a primary supply web (second web 24) for advancing a predetermined length of the primary supply web; a secondary feeding mechanism (web feed shuttle 16) for advancing a predetermined length of secondary

Art Unit: 1734

web (first web 20); a cross web shearing apparatus (cutting station 10) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (movable cutting member 32) positioned substantially perpendicular to the secondary web and movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (square member 68) positioned adjacent the shearing apparatus for receiving the strip and moving it to a sealing location adjacent the primary supply web; and a laminating device (tacking station 14) located proximate to a handling manifold (square member 68) for sealing the strip to the primary supply web.

As to Claim 2, Foote, Jr. et al. discloses a laminating device in which the cross web shearing apparatus includes a support blade (stationary cutting member 28) positioned substantially perpendicular to the shear blade and in a cutting relationship therewith such that the shear blade and the support blade cause the shearing of the strip (Figures 1 and 2).

As to Claim 3, Foote, Jr. et al. discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller controlled to feed the predetermined amount of the primary web (guide roll 80).

As to Claim 4, Foote, Jr. et al. discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller controlled to feed the predetermined amount of the secondary web (web feed shuttle 16).

As to Claim 7, Foote, Jr. et al. discloses a laminating device in which the handling device includes a vacuum applicator manifold using a vacuum signal to hold the secondary web (anvil sections 74, vacuum ports 78).

Art Unit: 1734

As to Claim 19, Foote, Jr. et al. discloses a laminating device in which the shear blade extends only a predetermined distance below the support blade at any time (Figure 2).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eicker (US 5,041,073). Eicker discloses that the primary web may be constructed of plastic (column 1, lines 8-12). Eicker is silent as to the primary web being oriented polypropylene or metallized oriented polypropylene. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the laminating device of Eicker would be capable of handling substrates composed of polypropylene.

19. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Eicker (US 5,041,073) as applied to claim 1 above, and further in view of Fukumoto (US 6,189,469) and Boreali et al.(US 6,210,515). Eicker is silent as to a laminating device in which the shear blade is curved and the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip

Art Unit: 1734

material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the guillotine cutting mechanism of Eicker could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials.

20. Claims 13-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Eicker (US 5,041,073), Fukumoto (US 6,189,469), and Boreali et al. (US 6,210,515) as applied to claim 12 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741). Eicker is silent as to a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

21. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737). Foote, Jr. et al. is silent as to the composition of either web material being oriented polypropylene or metallized oriented polypropylene. However, it would have been readily apparent to one of ordinary skill in the art at the time of the invention that the laminating device of Foote, Jr. et al. would be capable of handling substrates composed of polypropylene.

Art Unit: 1734

22. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,083,737) as applied to claim 1 above, and further in view of Fukumoto (US 6,189,469) and Boreali et al.(US 6,210,515). Foote, Jr. et al. is silent as to a laminating device in which the shear blade is curved and the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the guillotine cutting mechanism of Foote, Jr. et al. could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; guillotine cutters and scissors cutters being functionally equivalent for cutting strip materials.

23. Claims 13-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Foote, Jr. et al. (US 4,83,737), Fukumoto (US 6,189,469), and Boreali et al.(US 6,210,515 as applied to claim 12 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741). Foote, Jr. et al. is silent as to a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

24. Claims 1-6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) in view of Boreali et al. (US 6,210,515). Van der Klugt discloses a laminating device (Figure 1) which includes a primary feeding mechanism cooperating with a primary supply web (pad material 10) for advancing a predetermined length of the primary supply web (column 2, lines 61-63); a secondary feeding mechanism (tracking mechanisms 20 and 21) for advancing a predetermined length of secondary web (strips 16 and 17); a cross web shearing apparatus (rotating cylindrical knife 44) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (blades 45) movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (tables 27) positioned adjacent the shearing apparatus for receiving the strip and moving it to a sealing location adjacent the primary supply web; and a laminating device (assembly rollers 11 and 12) located proximate to a handling manifold (tables 27) for sealing the strip to the primary supply web. Van der Klugt is silent as to the laminating device having a shear blade that is both positioned perpendicular to the secondary material web and movable through a cutting motion. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades

Art Unit: 1734

that are positioned perpendicular to a support blade and web substrate and are movable through a cutting motion.

As to Claim 3, van der Klugt discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller controlled to feed the predetermined amount of the primary web (column 2, lines 61-63).

As to Claim 4, van der Klugt discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller controlled to feed the predetermined amount of the secondary web (tracking mechanisms 20 and 21).

As to Claims 5 and 6, van der Klugt discloses that the primary and secondary web substrates may have conventional constructions (column 3, lines 7-9), but is silent as to the composition of either web material being oriented polypropylene or metallized oriented polypropylene. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the laminating device of van der Klugt would be capable of handling substrates composed of polypropylene.

As to Claim 8, van der Klugt discloses a laminating device in which the handling device includes a plurality of applicator manifolds (tables 27) each using a vacuum signal to hold the strip (column 3, lines 62-64).

As to Claim 9, van der Klugt discloses a laminating device in which the plurality of applicator manifolds are attached to a rotation block, wherein the rotation block is rotatable about a central axis to appropriately position the plurality of applicator manifolds (Figure 1; column 4, lines 8-28).

As to Claim 10, van der Klugt discloses a laminating device which includes a holding clamp (application roller 43) positioned adjacent the cross web shear device and the handling device, such that the holding clamp will hold the secondary web against the handling device prior to shearing the reinforcing strip.

As to Claim 11, van der Klugt is silent as to the holding clamp being movable between a feeding position and a holding position. It is well known and conventional in the apparatus art to use movable rollers for the dual purpose of feeding and holding a web substrate. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the holding clamp in the laminating device of van der Klugt to be movable between positions for feeding and holding the secondary web; movable rollers being well established in the art.

25. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) and Boreali et al. (US 6,210,515) as applied to claim 1 above, and further in view of Fukumoto (US 6,189,469). Van der Klugt is silent as to a laminating device in which the shear blade is curved and the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). As noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials.

26. Claims 13-18 rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Fukumoto (US 6,189,469), and Boreali et al. (US 6,210,515 as applied to claim 12 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741).

Van der Klugt is silent as to a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

27. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) in view of Boreali et al. (US 6,210,515). Van der Klugt discloses an apparatus including a primary supply feed roller coupled to a primary web (pad material 10) to move the primary web in a predetermined manner (Figure 1, assembly rollers 11 and 12); a secondary supply feed roller coupled to a secondary web (strip 16 or 17) to move the secondary web in a predetermined manner (tracking mechanism 20 and 21); a cross web shear device having a shear blade (rotating cylindrical knife 44), the cross web shear device positioned to receive the secondary web at a cutting position between the shear blade and a movable applicator, the cross web shear further having a blade actuator for moving the shear blade through a cutting motion after the secondary web has been positioned at the cutting position

Art Unit: 1734

resulting in a strip to be sheared from the secondary web (column 3, lines 57-67; column 4, lines 1-7); a movable applicator having an applicator manifold (tables 27) positionable in a cutting position adjacent the cross web shear device such that the secondary web extends adjacent a holding surface of the applicator manifold having a plurality of vacuum apertures in a holding surface to create a vacuum seal between the secondary web and the holding surface when the secondary web is in the cutting position, the movable applicator movable between cutting position and a delivery position allowing movement of the strip to an attachment location (column 3, lines 27-35; column 4, lines 8-28); and an attachment device (assembly rollers 11 and 12, support 14) positioned adjacent the applicator delivery position, in which the strip can be attached to the primary web by the attachment device cooperating with the applicator. Van der Klugt is silent as to a laminating device which includes a cross web shear device having a support blade such that the cross web shear device is positioned to receive a web substrate at a cutting position between the shear blade and the support blade. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades that are positioned perpendicular to a support blade and a web substrate and are movable through a cutting motion.

As to Claim 35, van der Klugt is silent as to a laminating device which includes a heating element for attaching a reinforcing strip via a heat seal. It is well known and conventional in the

Art Unit: 1734

laminating apparatus art to laminating devices with heating elements for effecting material bonding via heat sealing. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify the laminating device of van der Klugt to include a heating element for bonding materials with thermally activated adhesive; heated laminating elements being well established in the art.

28. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954) and Boreali et al. (US 6,210,515) as applied to claim 34 above, and further in view of Fukumoto (US 6,189,469). van der Klugt is silent as to laminating device in which the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the cutting motion of the shear blade is a rocking motion (Figure 11; column 1, lines 57-65). As noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of van der Klugt could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials.

29. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Klugt (US 5,584,954), Boreali et al. (US 6,210,515), and Fukumoto (US 6,189,469) as applied to claim 36 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. et al. (US 5,331,741). van der Klugt is silent to a laminating device having actuating structural elements

Art Unit: 1734

including cam tracks or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

30. Claims 1-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520) in view of Boreali et al. (US 6,210,515). Beaudoin et al. discloses a laminating device (Figure 3) which includes a primary feeding mechanism cooperating with a primary supply web (facing sheet 13) for advancing a predetermined length of the primary supply web; a secondary feeding mechanism (rolls 25-28) for advancing a predetermined length of secondary web (elastic material 14A); a cross web shearing apparatus (knife roll 24) positioned downstream from the secondary feeding mechanism for receiving the predetermined length of the secondary web, the cross web shearing apparatus including a shear blade (blades 33) movable through a cutting motion to cause a strip to be sheared from the secondary web; a handling drive (transfer device 21) positioned adjacent the shearing apparatus for receiving the strip and moving it to a sealing location adjacent the primary supply web; and a laminating device (transfer roll 22) located proximate to a handling manifold (transfer device 21) for sealing the strip to the primary supply web. Beaudoin et al. is silent as to the laminating device having a shear blade that is both positioned perpendicular to the secondary material web and movable through a cutting motion. Boreali et al. discloses that cutting devices such as

Art Unit: 1734

guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of Beaudoin et al. could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades that are positioned perpendicular to a support blade and a web substrate and are movable through a cutting motion.

As to Claim 3, Beaudoin et al. discloses a laminating device in which the primary feeding mechanism is a driven primary feed roller (backup roller 47) controlled to feed the predetermined amount of the primary web.

As to Claim 4, Beaudoin et al. discloses a laminating device in which the secondary feeding mechanism is a driven secondary feed roller (rollers 25-28) controlled to feed the predetermined amount of the secondary web .

As to Claims 5 and 6, Beaudoin et al. is silent as to the composition of either web material being oriented polypropylene or metallized oriented polypropylene. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the laminating device of Beaudoin et al. would be capable of handling substrates composed of polypropylene.

As to Claim 8, Beaudoin et al. discloses a laminating device in which the handling device includes a plurality of applicator manifolds (members 51 and 52) each using a vacuum signal to hold the strip (vacuum head 63).

As to Claim 9, van der Klugt discloses a laminating device in which the plurality of applicator manifolds are attached to a rotation block, wherein the rotation block is rotatable about a central axis to appropriately position the plurality of applicator manifolds (Figure 3).

Art Unit: 1734

31. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520) and Boreali et al. (US 6,210,515) as applied to claim 1 above, and further in view of Fukumoto (US 6,189,469). Beaudoin et al. is silent as to a laminating device in which the shear blade is curved and the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the shear blade is curved and the cutting motion is a rocking motion (Figure 11; column 1, lines 57-65). As noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of Beaudoin et al. could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials.

32. Claims 13-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520), Fukumoto (US 6,189,469), and Boreali et al. (US 6,210,515 as applied to claim 12 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. (US 5,331,741). Beaudoin et al. is silent as to a laminating device having actuating structural elements including cam tracks, cam followers, or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks, cam followers, cam framework, and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the

Art Unit: 1734

art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

33. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520). Beaudoin et al. discloses an apparatus (Figure 2) including a primary supply feed roller coupled to a primary web (facing sheet 13) to move the primary web in a predetermined manner; a secondary supply feed roller coupled to a secondary web (ribbon 14A) to move the secondary web in a predetermined manner (rollers 25-28); a cross web shear device (knife roll 24) having a shear blade (knife 33), the cross web shear device positioned to receive the secondary web at a cutting position between the shear blade and a movable applicator, the cross web shear further having a blade actuator for moving the shear blade through a cutting motion after the secondary web has been positioned at the cutting position resulting in a strip to be sheared from the secondary web; a movable applicator having an applicator manifold (transfer device 21) positionable in a cutting position adjacent the cross web shear device such that the secondary web extends adjacent a holding surface of the applicator manifold (grippers 53 and 54) having a plurality of vacuum apertures in a holding surface to create a vacuum seal (vacuum head 63) between the secondary web and the holding surface when the secondary web is in the cutting position, the movable applicator movable between cutting position and a delivery position allowing movement of the strip to an attachment location; and an attachment device (transfer roll 22) positioned adjacent the applicator delivery position, in which the strip can be attached to the primary web by the attachment device cooperating with the applicator. Beaudoin et al. is silent as to a laminating device which

Art Unit: 1734

includes a cross web shear device having a support blade such that the cross web shear device is positioned to receive a web substrate at a cutting position between the shear blade and the support blade. Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material (column 3, lines 62-67). It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of Beaudoin et al. could be replaced with either a functionally equivalent scissors or guillotine cutting mechanism which conventionally include shear blades that are positioned perpendicular to a support blade and a web substrate and are movable through a cutting motion.

As to Claim 35, Beaudoin et al. is silent as to a laminating device which includes a heating element for attaching a reinforcing strip via a heat seal. It is well known and conventional in the laminating apparatus art to laminating devices with heating elements for effecting material bonding via heat sealing. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify the laminating device of Beaudoin et al. to include a heating element for bonding materials with thermally activated adhesive; heated laminating elements being well established in the art.

34. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520) and Boreali et al. (US 6,210,515) as applied to claim 34 above, and further in view of Fukumoto (US 6,189,469). Beaudoin et al. is silent as to laminating device in which the cutting motion is a rocking motion. Fukumoto discloses a stripping cutting device in which the cutting motion of the shear blade is a rocking motion (Figure 11; column 1, lines 57-65). As

Art Unit: 1734

noted above, Boreali et al. discloses that cutting devices such as guillotine cutters, scissors cutters, or rotating cutting cylinders can be used interchangeably for cutting a strip material. It would have been readily apparent to one of ordinary skill in the art at the time of the invention that the rotating cutting mechanism of Beaudoin et al. could be replaced with a scissors-type cutting mechanism such as that of Fukumoto; rotating cutters and scissors cutters being functionally equivalent for cutting strip materials.

35. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaudoin et al. (US 4,925,520), Boreali et al. (US 6,210,515), and Fukumoto (US 6,189,469) as applied to claim 36 above, and further in view of Dreier et al. (US 4,463,693) and Taylor, Jr. et al. (US 5,331,741). Beaudoin et al. is silent to a laminating device having actuating structural elements including cam tracks or cam pins. It is well known and conventional in the cutting apparatus art, as disclosed by Dreier et al. (Figures 1 and 2; column 4, lines 54-63) and Taylor, Jr. (column 3, lines 5-16), to use cam tracks and cam pins to facilitate movement of a cutting blade. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize conventionally known actuating structural elements such as cam tracks, cam followers, and cam pins to effect the rocking movement of a shear blade.

Conclusion

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl N. Hawkins whose telephone number is (703) 306-0941. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

Art Unit: 1734

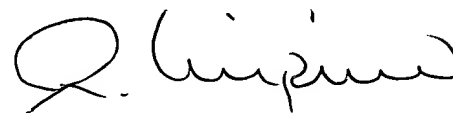
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where the application or proceeding is assigned is (703) 872-9310 for regular communications or (703) 872-9311 for After-Final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

Cheryl N. Hawkins

Cheryl N. Hawkins 8/22/02

August 22, 2002



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700